BALTEX Survey on

Biogeochemical Modelling Activities in the Baltic Sea Basin

Model Name	MIKE3
Model Description	The coupled 3D ecohydrodynamic model MIKE3 (developed by DHI) has been applied at Marine Systems Institute at Tallinn University of Technology for modelling the ecological conditions in central and eastern parts of the Gulf of Finland during the biologically active period.
State Variables	Phytoplankton C phytoplankton N phytoplankton P chl-a, inorg. N, inorg. P, zooplankton C, diss. O2, detritus C, detritus N, detritus P; 11state variables, plus the possibility to include benthic vegetation
On a scale between 1 and 10, please classify your model	1 x Biogeochemical cycling, matter fluxes 2 3 4 5 6 7 8 9 10 Ecosystem functioning
Dimension (0D, 1D, 2D, 3D)	3D
Modeled Area (Marine, terrestial, combined)	Marine
Coupled to hydrological component	No
Suited for climate change sensitivity studies	Yes
Publications	Gennadi Lessin and Urmas Raudsepp (2006) Water quality assessment using integrated modeling and monitoring in Narva Bay, Gulf of Finland. Environmental Modelling and Assessment 11(4):315-332 Lessin G, Raudsepp U. (2006) Modelling the spatial distribution of phytoplankton and inorganicnitrogenin Newa Bay, southeastern Gulf of Finland in the biologically active period.Ecological Modelling (in press)
Institute	Marine Systems Institute at Tallinn University of Technology
Developer, E-Mail	Danish Hydraulics Institute (now DHI Water & Environment) dhi@dhigroup.com
Web Site	Developer: www.dhigroup.com Marine Systems Institute: www.msi.ttu.ee

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